



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D2745

Job Sheet 179049



Part No: D2745

Job Qty: 300 ea

Part Name: Bushing



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/13/18

Job Tracking No:

Due Date: 7/2/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV B IPP C 02.03.07 Update to turn in house NG IPP Rev:D 07-10-23 Removed tumbling JLM Verified By:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	300 Ea	7/2/18	7/2/18	0.00	0.00	Start Up Machining-1		JRD
100	Hardinge	300 pcs	7/2/18	7/2/18	0.01	21.98	Hardinge		JRD
120	QC	300 pcs	7/2/18	7/2/18	0.00	0.00	QC8		18/07/18
130	Packaging	300 pcs	7/2/18	7/2/18	0.00	0.00	Packaging3-1	FP-001	18-7-17
140	QC21-SA	300 Ea	7/2/18	7/2/18	0.00	0.00	QC21		DAS JUL 18 2018

Part Op 100 - 1-Turn as per Dwg D2515
Descriptions: 130 - LOCATION : FP001

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M303R0.750	303 Round Bar 0.750	28.7700 ft (.0959 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M303R0.750	29	71	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Bushing	0.060inches ± 0.010	0.060 0.070 0.050		
2	Bushing	0.400inches ± 0.010	0.400 0.410 0.390		
3	Bushing	0.060inches ± 0.010	0.060 0.070 0.050		
4	Bushing	1.020inches ± 0.010	1.020 1.030 1.010		
5	Bushing	0.030inches ± 0.010	0.030 0.040 0.020		
6	Bushing	20.000Degrees ± 0.000	20 20.000 20.000		
7	Bushing	0.472inches ± 0.010	0.472 0.482 0.462		

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																								
Description Work Order Deviation				Disposition				Completed By																																																							
								Lead hand / Supervisor Approval Verification																																																							
								QC / QA Coordinator Approval																																																							
Root Cause		FAULT CATEGORY																																																													
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____	
Misidentified ☐	Past Due ☐																																																														

8	Bushing	0.378	0.375inches + 0.006 - 0.001	0.381 0.374
9	Bushing	0.561	0.560inches ± 0.010	0.570 0.550
10	Bushing	0.743	0.750inches ± 0.010	0.760 0.740

Plex 6/13/18 11:49 AM Dart.lajeunesse.marie

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Date : _____ Description 		DART AEROSPACE Part: D2745 Job No: 179049 Serial No/Batch: S091818 Revision: Inspector: Exp Date: Instructions: Dart Aerospace Ltd. 1270 Aberdeen Street, Hemet, OR 96841 TEL: 531 832-5200 Email: sales@dartaero.com www.dartaerospace.com Date: 07/15/18		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																				
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="4" style="text-align: left; padding: 5px;">Root Cause</th> </tr> <tr> <td style="width:15%; padding: 5px;">Environment ☐</td> <td style="width:15%; padding: 5px;">☐ No Re-vericat</td> <td style="width:40%;"></td> <td style="width:30%; padding: 5px;">☐ Positioned Wrong</td> </tr> <tr> <td style="padding: 5px;">Design ☐</td> <td style="padding: 5px;">☐ Operator</td> <td></td> <td style="padding: 5px;">☐ Outside Dimensions</td> </tr> <tr> <td style="padding: 5px;">Doc/Data ☐</td> <td style="padding: 5px;">☐ Offset/Setup</td> <td></td> <td style="padding: 5px;">☐ Over/Under tolerance</td> </tr> <tr> <td style="padding: 5px;">Equip/Tooling ☐</td> <td style="padding: 5px;">☐ Supplier</td> <td></td> <td style="padding: 5px;">☐ Part Incorrect</td> </tr> <tr> <td style="padding: 5px;">Handling/Pre ☐</td> <td style="padding: 5px;">☐ Training</td> <td style="padding: 5px;">☐ Crimp/Kink/Ripple/Wave</td> <td style="padding: 5px;">☐ Part Lost/Missing</td> </tr> <tr> <td style="padding: 5px;">Material ☐</td> <td style="padding: 5px;">☐ Use for Testing</td> <td style="padding: 5px;">☐ Cuffs</td> <td style="padding: 5px;">☐ Part Moved</td> </tr> <tr> <td style="padding: 5px;">Internal Transport ☐</td> <td style="padding: 5px;">☐ Poor Information</td> <td style="padding: 5px;">☐ Crushing</td> <td style="padding: 5px;">☐ Drawing</td> </tr> <tr> <td style="padding: 5px;">Tribal Knowledge ☐</td> <td style="padding: 5px;">☐ Rushing</td> <td style="padding: 5px;">☐ Heat Treat</td> <td style="padding: 5px;">☐ Finish</td> </tr> <tr> <td style="padding: 5px;">LOA ☐</td> <td style="padding: 5px;">☐ Product Improvement</td> <td style="padding: 5px;">☐ Wave/Twist in Tube</td> <td style="padding: 5px;">☐ Misread</td> </tr> <tr> <td style="padding: 5px;">Substation ☐</td> <td style="padding: 5px;">☐ Process Improvement</td> <td style="padding: 5px;">☐ Marks/Chatter</td> <td style="padding: 5px;">☐ Turning Sequence</td> </tr> <tr> <td style="padding: 5px;">Past Expiry Date ☐</td> <td style="padding: 5px;">☐ Manufacturing Process</td> <td></td> <td></td> </tr> <tr> <td style="padding: 5px;">Misidentified ☐</td> <td style="padding: 5px;">☐ Past Due</td> <td colspan="2" style="padding: 5px;">OTHER : _____</td> </tr> </table>					Root Cause				Environment ☐	☐ No Re-vericat		☐ Positioned Wrong	Design ☐	☐ Operator		☐ Outside Dimensions	Doc/Data ☐	☐ Offset/Setup		☐ Over/Under tolerance	Equip/Tooling ☐	☐ Supplier		☐ Part Incorrect	Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Part Lost/Missing	Material ☐	☐ Use for Testing	☐ Cuffs	☐ Part Moved	Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Drawing	Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Finish	LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Misread	Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Turning Sequence	Past Expiry Date ☐	☐ Manufacturing Process			Misidentified ☐	☐ Past Due	OTHER : _____	
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